Information Technology Infrastructure Review and Assessment

Final Assessment

July 22, 2011

Washington State Health Care Authority

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Objectives of IT Infrastructure Review & Assessment

- Conduct IT Gap Analyses for a Health Insurance Exchange (HIX) in Washington State.

- Evaluate various solution alternatives against key criteria including the identification of System Assets that can be leveraged for the Exchange.
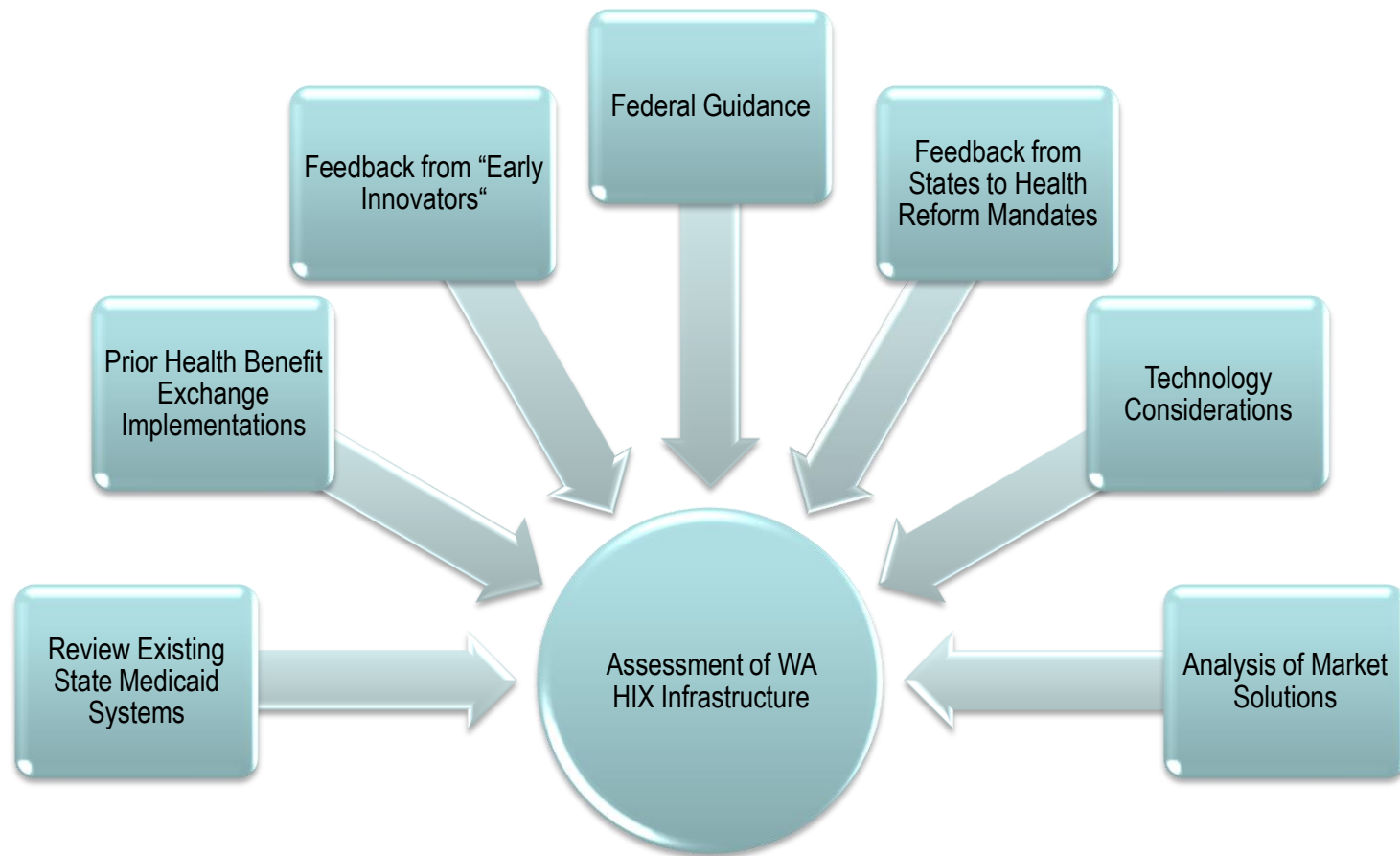
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Key Topics

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IT Assessment Guiding Principles

- Business needs must drive technology solutions

- Leverage existing state investments in technology where feasible

- Cost Efficient

- Flexible and Scalable to meet changing regulatory environment

- Consistent with State Enterprise Architecture and IT Standards

- Conform with HIPAA, State Security and Privacy policies

- Minimize changes to existing legacy state systems

- Minimize implementation related risks

- Easy to use for consumers

- ADA compliant

- Sustainable

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IT Assessment Approach


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Feedback from "Early Innovators"

Federal Guidance

Feedback from States to Health Reform Mandates

Prior Health Benefit Exchange Implementations

Technology Considerations

Review Existing State Medicaid Systems

Assessment of WA HIX Infrastructure

Analysis of Market Solutions
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A comprehensive approach was used to conduct the assessment and validate the findings.

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Washington State Systems Reviewed

ID	System Name	System Description	System Owner	Status
1.	ACES	ACES supports eligibility for a large number of programs including cash, medical, and food assistance	DSHS, ESA	In Production
2.	Washington Connection	Statewide Portal for self screening, application submission, renew benefits and report changes for TANF, SNAP, Medicaid and other medical programs	DSHS, ESA	In Production
3.	ProviderOne	Claims Processing and Provider Payment System	HCA /MPA	In Production
4.	OneHealthPort	Community that facilitates sharing of information and implementation of Health Information Exchange	OneHealthPort – State Designated Entity	In Design and Development
5.	Client Hub*	Provides a unique identifier for clients(including Medicaid) across multiple programs and systems	DSHS/ISSD	In Design and Development
6.	Provider Hub	Provides a unique identifier for all Medicaid Providers	HCA/MPA	In Design and Development

Note: Client Hub* – Is a planned project under ProviderOne Phase 2 that enables tracking of clients that receive various health care services

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Key Benefits of HIX

- Provides an organized and competitive marketplace to purchase health insurance

- Provides information to help individuals understand available options and compare plans

- Provides a set of common rules regarding plan offering and pricing

- Creates an administrative mechanism and facilitates enrollment into health plans

- Assists individuals in determining if they are eligible for public health programs or premium tax credits or cost sharing subsidies

- Provides choice of health plans for employees of small businesses

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HIX Requirements Overview - Core Component Areas
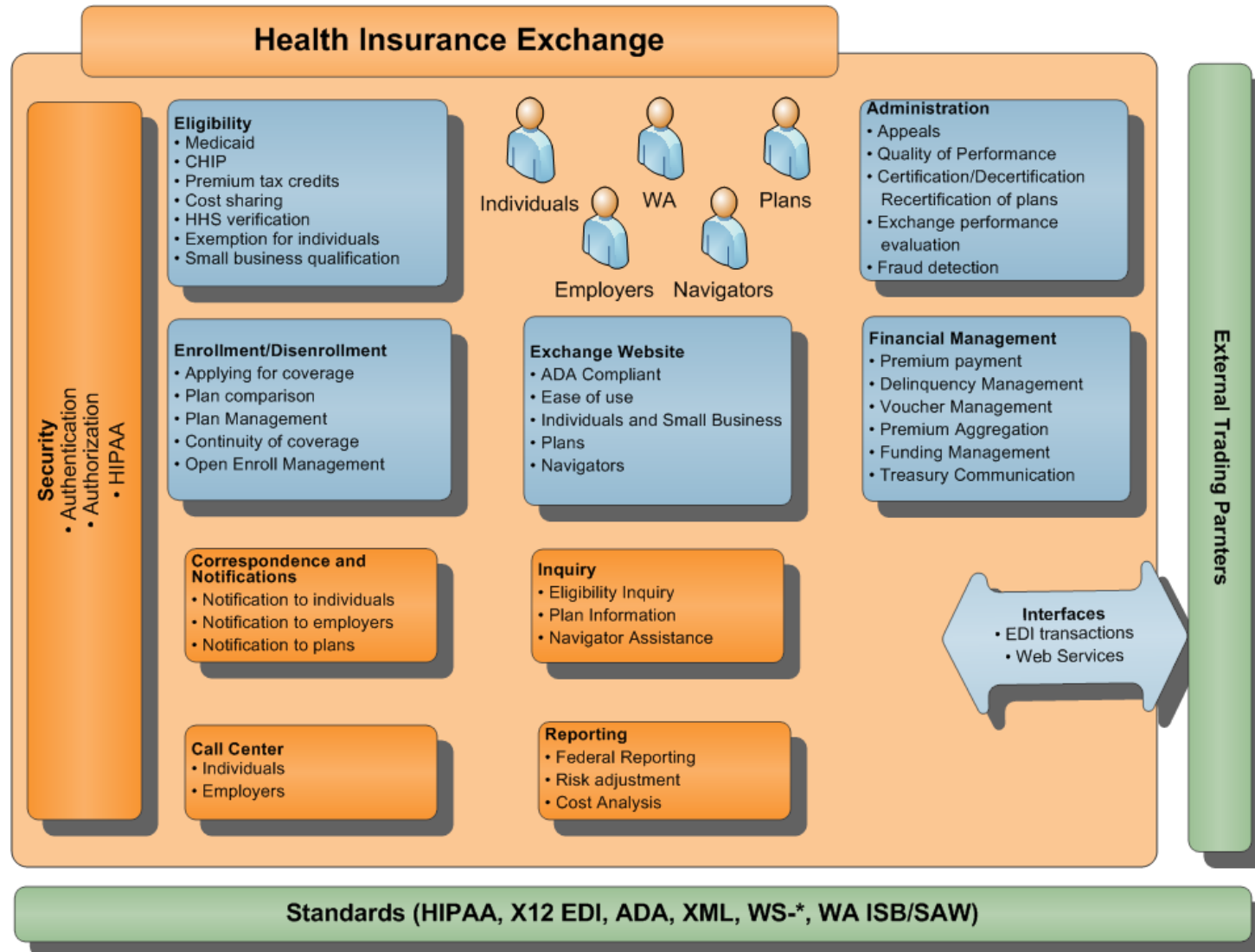
HIX Conceptual Solution - Overview
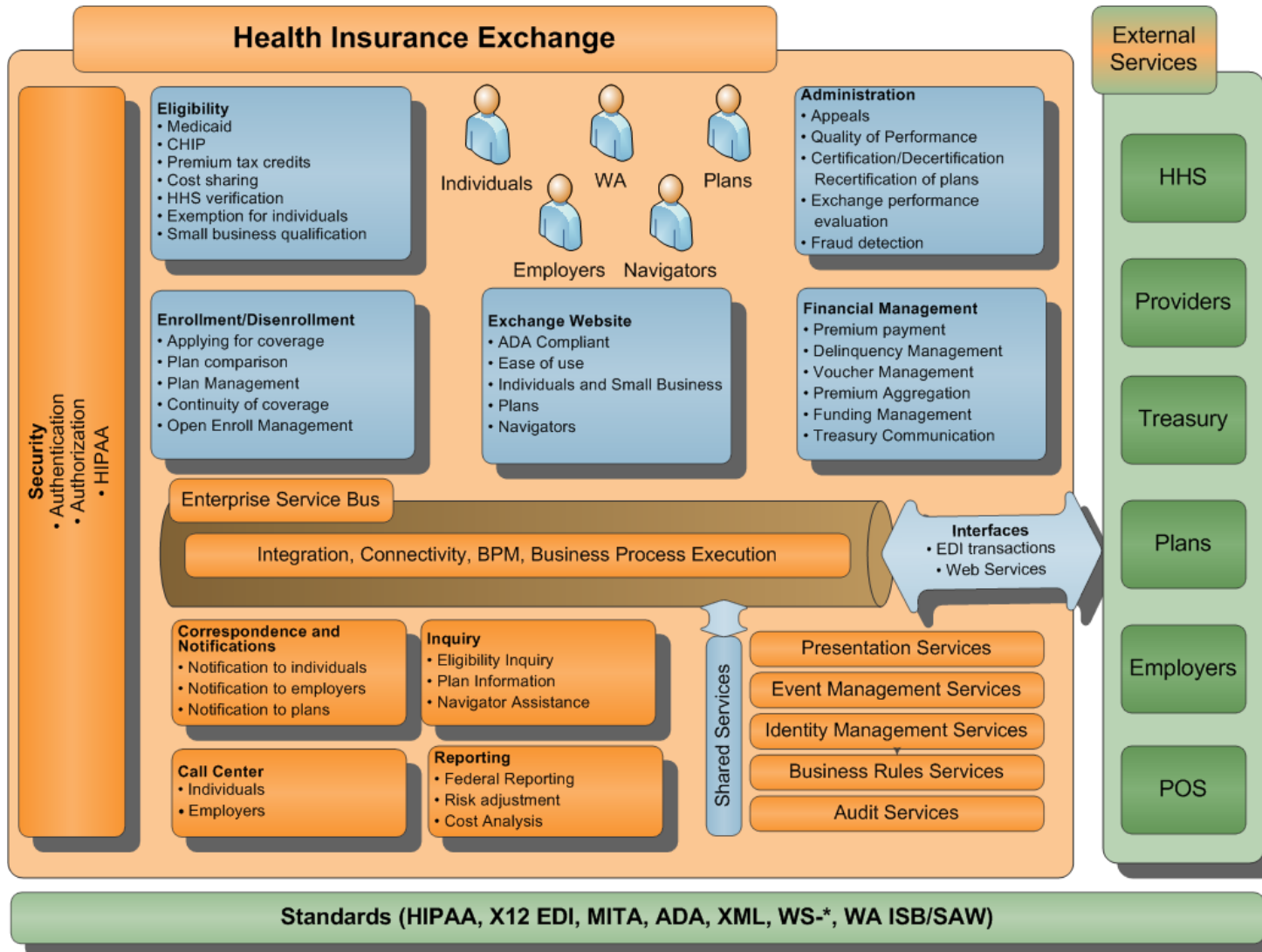
CMS Guidance for Exchange and Medicaid Information Technology (IT) Systems Version 2.0 May, 2011

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CMS Guidance Highlights

- IT Systems should be simple and seamless in identifying people who qualify for coverage through the Exchange, tax credits, cost-sharing reductions, Medicaid, and CHIP. States should aim to provide the same customer experience to all individuals seeking coverage, regardless of source or amount of financial assistance for which they may qualify or whether they enter the process through the Exchange, Medicaid, or CHIP.

- Most individuals will be evaluated for eligibility in the Exchange, tax credits, Medicaid, and CHIP using a coordinated set of rules. As a result, we expect the use of a common or shared eligibility system or services to adjudicate placement for these individuals.

- States should not assume that they will have to operate a "shadow eligibility system" for the purpose of claiming appropriate match for Medicaid individuals based on whether they were eligible under the state rules in effect prior to 2014 or are "newly eligible".

- States will need to allocate costs of their IT systems proposals, considering OMB Circular A-87 between Exchanges, Medicaid and CHIP. The services or functions necessary to adjudicate eligibility for premium tax credits and reduced cost sharing, Medicaid, or CHIP based on MAGI must be cost allocated among those programs.

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CMS - Technical Architecture Guidance Framework

Systems developed or enhanced to support functions of the HIX should adhere to these architecture framework when possible

- **Exchange Architecture Guidance Framework**
  - Exchange Reference Architecture: Foundation Guidance: provides the business architecture, information architecture, and technical architecture for the nationwide health insurance exchange(s).
  - Collaborative Environment and Governance Approach – Exchange Reference Architecture Supplement: provides the collaborative environment and governance approach for the nationwide health insurance Exchange(s) and federal data services hub
  - Harmonized Security and Privacy Framework – Exchange TRA Supplement: introduces and defines a risk-based Security and Privacy Framework for use in the design and implementation of the Exchanges and the data services hub
  - Eligibility and Enrollment Blueprint – Exchange Business Architecture Supplement
  - Plan Management Blueprint – Exchange Business Architecture Supplement
  - Financial Management Blueprint – Exchange Business Architecture Supplement
  - Customer Service Blueprint – Exchange Business Architecture Supplement
  - Communications Blueprint – Exchange Business Architecture Supplement
  - Oversight Blueprint – Exchange Business Architecture Supplement

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CMS - Technical Architecture Principles

Systems developed or enhanced to support functions of the HIX should adhere to these architecture principles to the fullest extent possible

Systems Integration

- Provide high-level integration of process flow and information flow with such business partners as Navigators, health plans, small businesses, brokers, employers, and others.

- Apply a modular, flexible approach to systems development, including the use of open interfaces and exposed APIs, and the separation of business rules from core programming, available in both human and machine-readable formats.

- Ensure seamless coordination between the Exchange, Medicaid, and CHIP , and allow interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services.

Service Oriented Architecture

- Employ Web Services Architecture/Service-Oriented Architecture methodologies for system design and development and to ensure standards-based interfaces to link partners and information at both federal and state levels.

- Employ common authoritative data sources and data exchange services, such as but not limited to, federal and state agencies or other commercial entities.

- Employ open architecture standards (non-proprietary) for ease of information exchanges

Isolation of Business Rules

- Use standards-based business rules and a technology-neutral business rule repository.

- Consistent with the recommendations issued pursuant to section 1561 of the Affordable Care Act, clearly and unambiguously express business rules outside of transactional systems.

- Enable the business rules to be accessible and adaptable by other states.

- Submit business rules to a federally designated repository.

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CMS - Technical Architecture Principles - Continued

Security and Privacy

- Support the application of appropriate controls to provide security and protection of enrollee and patient privacy.

Efficient and Scalable Infrastructure

- Leverage the concept of a shared pool of configurable, secure computing resources (e.g., Cloud Computing)

Transparency, Accountability and Evaluation

- Produce transaction data and reports in support of performance
- Leverage Commercial Off-the-Shelf business intelligence functionality to support the development of new reports and respond to queries.

System Performance

- Ensure quality, integrity, accuracy, and usefulness of functionality and information.
- Provide timely information transaction processing, including maximizing real-time determinations and decisions.
- Ensure systems are highly available and respond in a timely manner to customer requests.

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CMS - Technical Architecture and Standards

- Federal Data Services Hub – to verify citizenship, immigration, and tax information from Social Security Administration, Department of Homeland Security and Internal Revenue Service

- Standards
  - Comply with all relevant HIPAA Standards including those for protection of protected health information (PHI)
  - Fully comply with National Information Exchange Model (NIEM) – Data Standards defined for 11core data elements (eligibility and enrollment related)
  - Encourage States to follow Section 508 guidelines or guidelines that provide greater access to individuals with disabilities
  - Security and Privacy (HIPAA Privacy and Security Rules specify privacy and security requirements that HIPAA covered business associates must follow).

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HIX Capacity Requirements

ID	Program	Baseline	Low Participation	Medium Participation	High Participation
1.	Medicaid**	1,131,418	1,319,418	1,323,418	1,326,418
2.	Medicaid Increase		188,000	192,000	195,000
3.	Exchange - Individual (between 133% and 400% FPL for subsidized coverage and others who buy through the exchange)		135,000	259,000	382,000
4.	Exchange - Employees of small businesses		14,000	31,000	47,000

Note:

*** Medicaid baseline data extracted from Medical Assistance Eligible Persons Report, June 2010 and excludes those individuals that are covered by State-Only funds. It includes dual eligibles and those who have other primary coverage.*

The Exchange Participation Data for various categories is extracted from the draft Milliman Client Report titled "Planning Washington's Health Benefit Exchange"

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
Washington State Systems Review– Analysis and Findings

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Overall Findings

- ACES and ProviderOne are the two primary Medicaid Systems that have more of the functionality that was a Potential fit for the Exchange. The following slides provide a breakdown of the fit gap for these systems. In addition, key functional and technical assets of Washington Connection that were considered for the Exchange are summarized and their findings described under ACES. It is to be noted that Washington Connection currently functions as a portal for public assistance benefits and data captured is sent to ACES for final eligibility determination.

- "Client Hub " and "Provider Hub" are being developed as enterprise wide assets that could be leveraged for identifying clients and providers uniquely for the Exchange.

- OneHealthPort, a community that facilitates sharing of information and implementation of Health Information Exchange (HIE), via implementation of Axway technologies, enables trading partners to Exchange electronic health information including Eligibility, e-Prescribing, Continuity of Care Document and Lab Results. Provider Directory is limited to providers participating in HIE. Only components that can be leveraged for the Exchange include Security design and concepts.

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Existing Systems –
Functional Requirements Fit Gap Analysis

HIX Components	Relevant Systems/Alternatives		
	ACES*	P1	Findings
Enrollment/Disenrollment • Applying for coverage • Plan comparison • Plan Management (enrollment/disenrollment/changes) • Continuity of coverage • Open Enrollment Management	(low-medium)	(medium)	• ProviderOne currently has enrollment transactions to plans for Medicaid and CHIP clients This functionality can be extended for new Medicaid, other subsidized clients and non-subsidized clients. • ProviderOne has a client facing component that could be extended for comparison of plans and enrollment. • None of the existing systems allow for review and comparison of plans. • While ACES Online and Washington Connection have functionality to support application for eligibility/benefits, the rest of the functions need to be rebuilt – very little is reusable.
Eligibility Determination • Medicaid • CHIP • Premium tax credits • Cost sharing • HHS verification (citizenship and income) • Exemption for individuals • Small business qualification	(low-medium)	(low)	• ACES eligibility rules for Medicaid and CHIP is in COBOL code. This will need to be rewritten to comply with the new eligibility requirements – ability to leverage is very limited. • Existing ACES interfaces with external systems are batch or near real time including ACES-ProviderOne interface. New web services will need to be implemented to support the verification interfaces and real time eligibility determination. • Premium Tax Credits, Cost Sharing, Small Business Qualification, Verification Interfaces are all new functionality • If ACES is used for eligibility determination and/or System of Record of new Medicaid clients, there may be capacity to handle a 30% increase as many of the clients may already be known to ACES through other social service programs. ACES is also in the process of acquiring a new mainframe for additional capacity.
Correspondence and Notifications	(low-medium)	(low-medium)	• Both ACES and ProviderOne support correspondence generation in nine different languages. The technology of either system could potentially be leveraged for HIX. However, new correspondence templates have to be designed and logic developed to generate and print the correspondences.
Call Center	(low-medium)	(low-medium)	• Both ACES and ProviderOne have an IVR system that is integrated to the core application. Ability to leverage the technology is also dependent on the potential call volume for HIX – pending additional capacity analysis.

Legend:

○ Low	◔ Low to Medium	◑ Medium	◕ Medium to High	● High

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Existing Systems –
Functional Requirements Fit Gap Analysis *(Cont:)*

HIX Components	Relevant Systems/Alternatives		
	ACES*	P1	Findings
Financial Management • Premium payment • Delinquency Management • Voucher Management • Premium Aggregation • Funding Management • Treasury Communication	◕	◕	• Neither ACES nor ProviderOne has any functionality related to premium aggregation, voucher management, delinquency management, and treasury communication that can be leveraged. • ProviderOne fund management and claiming functionality could potentially be extended for funding and claiming. • Business Rules Engine from either WA Connection or ProviderOne could be used for some elements of premium aggregation, voucher and delinquency management.
Administration • Appeals • Quality of Performance • Certification/Decertification/Recertification of plans • Exchange performance evaluation • Fraud detection	◔	◕	• Quality of performance, Plan Management, and Exchange performance evaluation are new requirements – limited ability to reuse, if any, functionality from existing systems. • Both Washington Connection and ProviderOne have fraud detection capabilities through business analytic solutions that can be used as a starting point to build from.
Reporting • Federal Reporting • Risk adjustment • Cost Analysis	◔	◑	• Both ACES and ProviderOne have reporting infrastructure that can be leveraged for reporting, but will potentially require additional licenses. • ProviderOne related business analytics (Ingenix Solution) can be more of a functional fit for the reporting needs of the exchange.
Inquiry • Eligibility Inquiry • Plan Information • Navigator Assistance	◔	◕	• ProviderOne currently provides information on plans. This could potentially be extended. • ProviderOne provides eligibility inquiry. However, this would need to be extended for the new Medicaid and non-Medicaid individuals eligible for subsidies. • While ACES does not have any eligibility inquiry function for clients, WA Connection recently implemented the ability for clients to report a change and/or renew benefits online. WA Connection is implementing the ability for client to view eligibility information online in Aug 2011.

Legend: ○ Low   ◔ Low to Medium   ◑ Medium   ◕ Medium to High   ● High

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
Existing Systems –
Non-Functional Requirements Fit Gap Analysis

HIX Components	Relevant Systems/Alternatives		
	ACES*	P1	Findings
Exchange Website •ADA Compliant •Ease of use •Individuals and Small Business •Plans •Navigators	◔	◔	• WA Connection can be leveraged if the state plans on integrating the HIX horizontally with other social service programs. There is a risk of being perceived as "government " look and feel with a cumbersome process that is contrary to the Exchange customer experience that is envisioned based on the IT Guidance. It also blends the public assistance benefits into the private marketplace. All these factors may negatively impact the ability to attract non-Medicaid consumers to buy through the Exchange. • ProviderOne has a client and provider facing portal that could be leveraged.
Interfaces •EDI Transactions •Web Services	◔	◐	• WA Connection, ACES Online and ProviderOne all have web service capabilities. • ProviderOne generates the EDI Transactions today (270/271, 834, 820) that can be leveraged.
Security •Authentication •Authorization •HIPAA	◔	◔	• The security of both systems is centric to each. WA Connection is integrated with SAW and could potentially be extended to support internet facing UI components of the HIX. • Neither system supports WS-* web service security standards, something that may be a requirement of the federal interfaces.

Legend: ○ Low   ◔ Low to Medium   ◐ Medium   ◕ Medium to High   ● High

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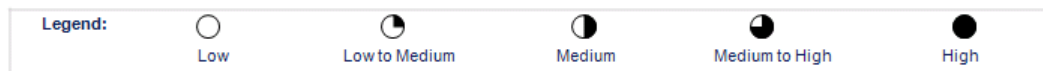
Technical Requirements

Technical Component	Relevant Systems/Alternatives			
	ACES	**WA Connection**	**P1**	**Comments**
Enterprise Service Bus	◕	◕	◕	• Transformation • Workflow Management • End Point Management • WS-* support • ACES, WA Connection, and ProviderOne both have Websphere MQ ESB
Business Rule Engine	○	●	●	• WA Connection BRE supports Rete Algorithm • Flexible • WA Connection supports IBM iLog BRE while ProviderOne has custom BRE
Data Exchange Standards	○	○	◔	• X12 EDI • XSD • HL7
Correspondence and Notifications	●	●	●	• Multiple Language Support • Automated • Physical/Electronic
Call Center	●	○	●	• IVR • Integrated
Document Management System	◐	○	◔	• Blob file indexing • P1 DMS is newer than what is available in ACES
Business Intelligence	○	◔	◔	• Data Warehouse • Operational Data Store • Reporting capabilities with Cognos for both WA Connection and ProviderOne

Legend: ○ Low   ◔ Low to Medium   ◐ Medium   ◕ Medium to High   ● High

Note: As the technology components for ACES and WA Connection are vastly different, they have been identified seperately. Also, items taken into consideration in the preceding table include: additional licensing, maintainability, functionality, staff knowledge base, and extensibility.

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IT Review and Assessment – Summary Findings

Summary Findings

- To date, no vendor has built all IT components of the Exchange.
    - Solutions exist in the marketplace for Plan Comparison and Enrollment
    - Solutions exist for Medicaid and CHIP eligibility determination
    - Solutions for Plan Comparison and Enrollment are not integrated with Medicaid and/or CHIP eligibility. Furthermore, eligibility for tax credits and subsidies are not built into any of these systems.

- Early Innovator States are not as far along as originally planned in terms of solutions development. Ability to leverage fully-built component(s) from other Early Innovator States are not promising, given the integration requirements with Washington State Systems.

- It is likely that the Solution for Washington HIX will be a combination of building some new components, buying a few components, leveraging existing State Assets and borrowing components/design from other States.

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HIX Solution Options

Enterprise Architecture – Recommendations for any HIX Solution Option

Data Services	Comments
Provider Hub	- Provides a central repository for Provider Management - Provider look-up - Provider registration - Provider Hub can be used for generating unique identifiers for all plans
Client Hub	- Provides a unique identifier for all clients - Phase 1 implementation, anticipated to be completed in six months will contain all ACES clients - Client Hub can be used to generate identifiers for all individuals coming through exchange

Infrastructure Services	Comments
Service Oriented Architecture	- Loose coupling - Distributed System - Agile environment to meet the ever changing needs of the HIX - Aligns with the MITA framework
Server Virtualization	- Server capacity management - Resources can almost be allocated dynamically - Server consolidation - Ease of infrastructure support
Server Farms - Web and Application	- Scalability to match demand - Redundancy - Separation of concerns - Ease of deployments - High Availability
Federated Security	- Single Sign On support - Non-repudiation support - Option should facilitate SAML Assertions
Certificate Management	- Centralized store - Non-repudiation support

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Objective and Key Criteria for Alternatives Evaluation

In addition to conducting an IT Gap Analysis for HIX, the objective is to evaluate various solution alternatives against key criteria including the identification of System Assets that can be leveraged for the Exchange.

#	Criteria	Detail
1	**Funding**	▪ Ability to maximize federal Exchange and CMS funding during DDI ▪ Funding impact on Maintenance and Operations
2	**Governance**	▪ Ability to influence and control the solution long term ▪ Competing priorities long term
3	**Requirements Fit** *"Which System better fulfills the requirements"*	▪ % fit with HIX requirements – one that would require less overall change ▪ Easily integrates with other enterprise wide assets ▪ Includes functional, non-functional, and technical requirements.
4	**Integration with Medicaid/CHIP**	▪ Simple and seamless in identifying people who qualify for coverage through the Exchange, tax credits, Medicaid, CHIP ▪ Seamless coordination of Exchange with Medicaid/CHIP ▪ Coordinated set of eligibility rules for Medicaid/CHIP; Common or shared system for eligibility determination and placement
5	**Schedule Risk** *"How quickly can it be implemented?"*	▪ Earliest implementation date ▪ Other competing priorities ▪ Risk of schedule delays
6	**Flexibility**	▪ Flexibility of solution to respond to changing federal guidance and regulations
7	**Sustainability**	▪ Ability to minimize operational costs after implementation
8	**Procurement**	▪ Procurement Complexity

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Common for all Solution Options

ID	Description	Criteria								Rationale
		Funding	Governance	Requirement Fit	Medicaid/CHIP Integration	Schedule Risk	Flexibility	Sustainability	Procurement	
1.	Leverage Client Hub and Provider Hub enterprise assets for generating unique client and provider identifiers Leverage ProviderOne for plan enrollment/disenrollment EDI Transactions ACES will continue to determine eligibility for certain Medicaid groups including blind, disabled population and be the System of Record for eligibility Use an Enterprise Service Bus, Business Rules Engine, Document Management System and Business Intelligence technologies as solution components	🟢	🟢	🟢	🟢	🔺	🟢	🟢	🟢	Reduced Exchange M&O costs by leveraging existing enterprise wide assets ProviderOne and Provider Hub components under HCA High degree of Requirements fit for selected components; Cost efficient and Reduces redundancy Achieves integration with Medicaid/CHIP by using common data services for Client and Providers and common enrollment services Delay in Client Hub and Provider Hub Implementations could impact Exchange Schedule Extend Provider Hub to track all Plans participating in the Exchange (Medicaid, CHIP, Individual and SHOP)
2.	Leverage and Incorporate Early Innovator State Solution Requirements, Design, Architecture, Best Practices and learnings' to gain efficiencies and reduce overall build and integration efforts	🟢	🟢	🟢	🟢	🟢	🟢	🟢	N/A	Early Innovator States like Wisconsin are further along in Requirements and Solution design. Washington can benefit by using Wisconsin solution models and concepts as a starting point to get a jumpstart on the solution build. Availability, timing and dependencies will need to be factored in to minimize impact to Washington Exchange Implementation Schedule.

KEY: 🟥 Least Favorable 🔺 Moderately Favorable 🟢 Most Favorable

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Option A -
Build New Exchange Portal

ID	Option Description	Criteria								Rationale
		Funding	Governance	Requirement Fit	Medicaid/CHIP Integration	Schedule Risk	Flexibility	Sustainability	Procurement	
A.	Develop New Exchange Portal whose Technology Architecture is compliant with Federal Guidance and State Standards to perform a large majority of the Exchange Functions Use Common Rules Engine Framework with coordinated set of rules to determine Eligibility for Exchange Tax Credits, Subsidies, Exemptions and Medicaid Eligibility that is shared by both Exchange and ACES Use "No Wrong Door" that allows for WA Connection and Exchange Portal to integrate with each other for individuals who comes through different channels	🟢	🟢	🟢	🟢	🔺	🟢	🟢	🟢	Maximizes 90-10 funding available for Medicaid related system changes during DDI and provides 75-25 funding for Medicaid eligibility rules maintenance that will also be shared by Exchange and helps with overall sustainability Minimizes risk of competing priorities across other Human Services programs impacting Exchange implementation schedule in the short term and enables quicker implementations for enhancements long term Integrates Medicaid/CHIP eligibility into Exchange; Achieves seamless coordination with Medicaid/CHIP *Separates Exchange from Human Services Programs* Compliant with CMS and CCIIO vision Extracting Medicaid eligibility business rules from ACES into a Business Rules Engine by 2014 is a significant effort and can potentially delay overall schedule

KEY: 🟥 Least Favorable 🔺 Moderately Favorable 🟢 Most Favorable

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Option B1 –
Use Washington Connection as Exchange Portal

ID	Option Description	Criteria								Rationale
		Funding	Governance	Requirement Fit	Medicaid/CHIP Integration	Schedule Risk	Flexibility	Sustainability	Procurement	
B1.	Use Washington Connection technology architecture as the base architecture to build the New Exchange Portal and perform a vast majority of the Exchange functions Use Common Rules Engine Framework with coordinated set of rules to determine Eligibility for Exchange Tax Credits, Subsidies, Exemptions and Medicaid Eligibility that is shared by both Exchange and ACES	🟢	🟥	🔺	🟡	🟥	🟥	🟢	🔺	Maximizes 90-10 funding available for Medicaid related system changes during DDI and provides 75-25 funding for Medicaid eligibility rules maintenance that will also be shared by Exchange and help with Exchange Sustainability Increases risk of competing priorities across other Human Services programs impacting Exchange implementation schedule in the short term *More integrated with human services programs and consequently be a risk to getting non-Medicaid consumers to buy through the Exchange* *High "government" look and feel* *Blends public assistance programs into private marketplace* Achieves Exchange integration with Medicaid and CHIP Complex procurement as Washington Connection is maintained by an integrator Extracting Medicaid eligibility business rules from ACES into a Business Rules Engine by 2014 is a significant effort and can potentially delay overall schedule

KEY: 🟥 Least Favorable 🔺 Moderately Favorable 🟢 Most Favorable

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Option B2 - A Variation:
Use Washington Connection as Exchange Portal

In this option, the Medicaid eligibility rules are **NOT** built into the Common Rules Engine framework that manages the rules for Exchange Tax Credits, Subsidies, and Exemptions.

ID	Option Description	Criteria								Rationale
		Funding	Governance	Requirement Fit	Medicaid/CHIP Integration	Schedule Risk	Flexibility	Sustainability	Procurement	
B2	Use Washington Connection technology architecture as the base architecture to build the New Exchange Portal and perform a vast majority of the Exchange functions Use Common Rules Engine Framework with coordinated set of rules to determine Eligibility for Exchange Tax Credits, Subsidies, and Exemptions. (*Medicaid eligibility rules are not built into the Common Rules Engine Framework*) Keep existing eligibility rules for Medicaid in ACES on existing platform	🔺	🟥	🔺	🔺	🔺	🟥	🔺	🔺	Does not leverage 90-10 funding available for Medicaid system changes. Maintenance funding stays at 50-50 and does not help Exchange Sustainability Increases risk of competing priorities across other Human Services programs impacting Exchange implementation schedule in the short term *Potentially more integrated with human services programs and consequently be a risk to getting non-Medicaid consumers to buy through the Exchange* *High "government" look and feel* *Blends public assistance programs into private marketplace* *Eligibility determination for Medicaid through the Exchange will be less seamless and real-time* Achieves Exchange integration with Medicaid Complex procurement as Washington Connection is maintained by an integrator As Medicaid eligibility business rules continue to stay in ACES, the impact to the overall schedule is less than option B1.

KEY: 🟥 Least Favorable   🔺 Moderately Favorable   🟢 Most Favorable

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Option C1 -
Use ProviderOne as the Exchange Portal

ID	Description	Criteria								Rationale
		Funding	Governance	Requirement Fit	Medicaid/CHIP Integration	Schedule Risk	Flexibility	Sustainability	Procurement	
C1	Use ProviderOne technology architecture as the base architecture to build the New Exchange Portal and perform a vast majority of the Exchange functions ✓ Build on the Client and Provider portal for the Exchange Website ✓ Use the ProviderOne ESB, BRE, Business Intelligence tool, Transaction Validation, and Correspondence Architecture for the Exchange Use Common Rules Engine Framework with coordinated set of rules to determine Eligibility for Exchange Tax Credits, Subsidies, Exemptions , Medicaid and CHIP Eligibility that is shared by both Exchange and ACES Use "No Wrong Door" that allows for WA Connection and Exchange Portal to integrate with each other for individuals who comes through different channels	🟢	🟢	🟢	🟢	🔺	🟢	🟢	🔺	Maximizes 90-10 funding available for Medicaid related system changes during DDI and provides 75-25 funding for Medicaid eligibility rules maintenance that will also be shared by Exchange and help with Exchange Sustainability ProviderOne currently managed by HCA/MPA *Separates Exchange from Human Services Programs* Integrates Medicaid/CHIP eligibility into Exchange; Achieves seamless coordination with Medicaid/CHIP Compliant with CMS and CCIIO vision Complex procurement as ProviderOne is maintained by an integrator Major system enhancements planned for ProviderOne may conflict and compete with Exchange development Extracting Medicaid eligibility business rules from ACES into a Business Rules Engine by 2014 is a significant effort and can potentially delay overall schedule.

KEY: 🟥 Least Favorable   🔺 Moderately Favorable   🟢 Most Favorable

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Option C2 – A Variation:
Use ProviderOne as the Exchange Portal

In this option, the Medicaid eligibility rules are **NOT** built into the Common Rules Engine framework that manages the rules for Exchange Tax Credits, Subsidies, and Exemptions.

ID	Description	Criteria								Rationale
		Funding	Governance	Requirement Fit	Medicaid/CHIP Integration	Schedule Risk	Flexibility	Sustainability	Procurement	
C2	Use ProviderOne technology architecture as the base architecture to build the New Exchange Portal and perform a vast majority of the Exchange functions ✓ Build on the Client and Provider portal for the Exchange Website ✓ Use the ProviderOne ESB, BRE, Business Intelligence tool, Transaction Validation, and Correspondence Architecture for the Exchange Use Common Rules Engine Framework with coordinated set of rules to determine Eligibility for Exchange Tax Credits, Subsidies, Exemptions . (*Medicaid eligibility rules are not built into the Common Rules Engine Framework*) Use "No Wrong Door" that allows for WA Connection and Exchange Portal to integrate with each other for individuals who comes through different channels	⚠	🟢	🟢	⚠	⚠	🟢	⚠	⚠	Does not leverage 90-10 funding available for Medicaid system changes. Maintenance funding stays at 50-50. ProviderOne currently managed by HCA/MPA *Separates Exchange from Human Services Programs* *Eligibility determination for Medicaid through the Exchange will be less seamless and real-time (as Medicaid business rules are still maintained in ACES)* Compliant with CMS and CCIIO vision Complex procurement as ProviderOne is maintained by an integrator Major system enhancements planned for ProviderOne may conflict and compete with Exchange development As Medicaid eligibility business rules continue to stay in ACES, the impact to the overall schedule is less than option C1.

KEY: 🟥 Least Favorable ⚠ Moderately Favorable 🟢 Most Favorable

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Appendices

HIX Early Innovators - (Point In Time Information)

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Early Innovator Research Findings

HIX Topic	Comments
Solution Strategy	The Exchange Technical Solution for Wisconsin, Oklahoma, and Oregon were all different and influenced by their existing IT infrastructure, gaps between the existing infrastructure and the Exchange requirements as well as other initiatives currently underway. While Wisconsin decided to leverage its web portal ACCESS, Eligibility System CARES and MMIS System Interchange, Oregon decided to use a commercially available framework in Oracle or Curam as the foundation for building the Exchange. Oklahoma planned to use its MMIS system as the foundation architecture for building the Exchange components. Takeaway: There is not a single IT solution that is available in the Marketplace today that can meet all of the Exchange functions. While frameworks are available commercially that will meet the Exchange framework architecture, much work needs to be done to build the Exchange and integrate it with existing state systems.
Implementation Schedule	States are still in the early stages of their requirements development efforts. Full functioning solution components are not expected to be available in a timeframe that will allow for Washington to leverage and customize one or more solution components for their specific needs. Takeaway: Washington will need to build its own solution now rather than waiting and increasing the risk of not having a solution in time by Jan 2014.
Sharing Work Products and Best Practices	Some of the Early Innovator States like Wisconsin have been planning for the Exchange for quite some time and are further ahead in defining the vision for the Exchange, designing prototypes and developing requirements. Takeaway: Washington should collaborate with the Early Innovator States as much as possible and try to leverage their work products from Requirements to Design and Development. Many of the Exchange related issues are common to all States and Washington would benefit by knowing how other States are solving similar problems.

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Wisconsin

HIX Topic	Comments
Technology System Overview	Medicaid eligibility system: ▪ The legacy system (CARES) is still being used, which also includes other social service programs. They continually deprecate legacy mainframe functionality, but the legacy system still supports eligibility functionality. ▪ The system has a web façade front-end, ACCESS, that provides client facing access. MMIS system: ▪ Java based front end system. ▪ With the addition of HP Interchange system in 2008 the state was awarded MITA certification.
Enhancement to Current Systems	▪ One major factor culminating in the decision to modify their existing systems was that the Interchange system currently enrolls beneficiaries into plans. Some portions can not be expanded, like the eligibility piece that is being ported to a rules engine. ▪ To help define a road map to implement the exchange and choose a vendor, Wisconsin had 17 vendors bid on how they would address modifying the current systems. They also developed a prototype top facilitate a vision and provide it as a guide. They also had a two year effort prior to ACA to plan for an exchange.
To-be Business Processes	▪ Wisconsin has started the development of the "to-be" business processes by both elaborating on what the exchange will need to accomplish and by developing working prototypes. ▪ Work groups have been formed and they have begun to break down the processes that need to be in place in order for them to move forward with the implementation.
Overview of IT Implementation Plan	▪ The first phase of the plan is to work out the enrollment for Medicaid individuals. ▪ The next two phases focus on employer and individual enrollment that are outside the Medicaid boundary, with plans to incrementally move to the larger population. ▪ They are trying to be in front of the greater policy decisions by making practical assumptions regarding MAGI and enrollment rules.

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Wisconsin

HIX Topic	Comments

Major Challenges	▪ Besides dealing with a new administration, Wisconsin has identified the following challenges:
	    ▪ There has yet to be any clear guidance with any level of fidelity from the federal government
	    ▪ The scope of the HIX combined with other health related challenges, 5010 and ICD10.
	    ▪ Leverage as many existing items they can in order to not duplicate efforts.

MAGI Impact to Eligibility	▪ Wisconsin is currently reviewing how the foreseen requirements will affect their eligibility rules. ▪ They are attempting to define who falls into which group and the income rules around specific groups. ▪ They are identifying situations and conditions when human intervention will be required. To complete eligibility determination.
HIX Artifacts	▪ Wisconsin is planning to offer products and tools that they develop to the greater HIX community; the idea being that the artifacts could be used by other states to facilitate their implementation. ▪ Wisconsin is also planning to share the source code for their exchange web site. Although this may be a generous offer, the source code may or may not be able to be used to support the WA HIX website. A detailed technical analysis will need to occur prior to attempting to port it over.
HIX Staffing Overview	▪ For the exchange there is a state lead, and vendor leads from HP and Deloitte. Deloitte is acting as the prime consultant for the exchange effort.
Key Findings	▪ Wisconsin is clearly the furthest along regarding all "early innovator" states. They are facilitating the shaping the federal requirements and anticipating what the impacts of the exchange will be. It is evident that if there are any truly "reusable" artifacts to come from any "early innovator" state, that they will most likely come from Wisconsin.

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Oregon

HIX Topic	Comments
Technology System Overview	- Oregon has plans to automate and refactor their current Medicaid eligibility system in parallel with their HIX implementation. - Oregon has not selected a vendor but the platform for the Exchange will be either Oracle or Curam.
Enhancement to Current Systems	- Oregon is going to do a full scale replacement of their eligibility system while implementing their HIX. - The plan is to implement both in a coordinated fashion and use the same "framework". - After a bake off between Curam and Oracle, Oregon will select an integrator to implement the exchange. - All changes and new development will occur over two years.
To-be Business Processes	
Overview of IT Implementation Plan	- The implementation plan that was submitted in the early innovator grant is the same plan that Oregon is currently using. - Their plan follows a standard waterfall approach to Software Development Lifecycle.
Major Challenges	Oregon has identified the aggressive implementation time frame and the coordination between their MMIS and HIX implementations as being their major challenges that they will face.
MAGI Impact to Eligibility	Oregon stated that is was a bit too early to give detailed consideration that MAGI will have in determining eligibility.
HIX Artifacts	Oregon has no artifacts or immediate plans to share artifacts for the exchange. When distributable artifacts become available they will arrange to share them.
HIX Staffing Overview	Oregon is undergoing the process for procuring vendors that will implement the exchange. Once a vendor has been chosen they plan to solidify their staffing plans.
Key Findings	Oregon has undertaken a great deal of work considering that they are replacing their entire eligibility system in the same timeframe that they are going to implement the exchange. Since the nascent projects have yet to shape concrete artifacts, it is recommended that a future meeting be scheduled after Oregon has made more progress on implementation.

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Oklahoma – returned their grant April 14th, 2011

HIX Topic	Comments
Technology System Overview	▪ Oklahoma's latest version of their MMIS system went live on September 7th of 2010. A majority of the social service population goes through their online system for enrolment, which is built in ASP.NET on top of the standard Microsoft stack. ▪ The MMIS system uses a business rule engine based on InRule to facilitate eligibility and enrollment.
Enhancement to Current Systems	▪ Oklahoma planned to leverage their current MMIS system as they foresaw the Medicaid expansion as having a significant impact to the system. ▪ The current system is supported by HP and built on a Microsoft .NET Foundation, which they planned to integrate with the exchange.
To-be Business Processes	▪ Many of the "to-be" processes were defined in their grant application. They had plans to build a member portal using the .NET Framework. The system would have provided a pre-eligibility determination, eligibility navigation, and validate the applicant upfront. ▪ Oklahoma planned to allow their Provider Index to be accessible to participants. ▪ Oklahoma also had plans to integrate their HIE with the exchange and support access to personal health records in a future phase.
Overview of IT Implementation Plan	▪ Oklahoma planned on taking a phased approach to implementation of the exchange; tentatively the first phase was to build out the member portal. Subsequent phases would have incorporated a master provider index, integrated with federal systems and existing MMIS system, and finally integrated with the state's HIE system.
Major Challenges	▪ The state of Oklahoma foresaw governance of the exchange as being the most immediate challenge and the aggressive timeline set by the federal government. ▪ Other major challenges included staffing for the HIX, IT planning and expertise, and reaching out to the greater business community regarding health plan modifications.
HIX Artifacts	▪ Oklahoma had no HIX artifacts to share at the time of the meeting, but responded that they would have shared requirements with the state of Washington.
HIX Staffing Overview	▪ Oklahoma had staffed the HIX project with twenty-one analysts (QA, Business, and Technical). They also had brought on three project managers (Technical, Operations, and Project). Oklahoma had an HIX steering committee comprised of the Governor, HCA, PMs, and cabinet members.
Key Findings	▪ Oklahoma had planned to build a member portal that would provide pre-eligibility determination and would validate the person as they navigated through the eligibility process. ▪ Governor Mary Fallin succumbed to pressure from state GOP lawmakers to return the $54.6 million grant.

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HIX Technology Solutions – Market Analysis

HIX Technology Solutions - Market Analysis

- eHealthInsurance and VIMO
  - Online source of health insurance for individuals, families and small businesses
  - Enables online comparison and purchase of health insurance products
  - Licensed to sell in all 50 States
  - Electronic communication with Health Plans
  - Integrated back office operations and customer support
  - Not integrated with Medicaid and/or CHIP

- bSwift
  - Business Process Outsourcing vendor
  - Enables Employers to use their SaaS model to register employees and provide an ability for the employees to choose plans and complete enrollment
  - Call center capabilities
  - Potential solution for SHOP component of Exchange
  - Technology Partner for Utah

- Healthequity
  - Technology Partner for Utah
  - Provides premium collection and aggregation service

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One Health Port – Key Findings

OneHealthPort – Key Findings

System Component	Comments
ESB	▪ The Axway "ESB" provides a flexible and secure solution for workflow and data transport management ▪ Provides a solid limited set of transformation services, centered around eligibility currently. ▪ Provides an excellent security model that protects data in transit and supports non-repudiation. ▪ The scope of the ESB is primarily used to support the eligibility inquiries and is relegated by market adoption.
Security Services	▪ OHP has implemented a solid federated security model including SAML assertions. ▪ Support Two-Factor Authentication ▪ Provides a solid foundation that could potentially be leveraged for external trading partners.
Provider Directory	▪ OHP has a provider directory that is used to facilitate the HIE ▪ The provider directory does not include all providers in the state, only providers that participate in HIE.

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